

REMARKS

Claims 1-29 are pending in the application.

Claims 1-15 stand withdrawn and are hereby cancelled without prejudice for filing in a divisional application.

Claims 16 and 19 are rejected under 35 U.S.C. § 102(b).

Claims 16-29 are rejected under 35 U.S.C. § 103.

Claim 25 is cancelled without prejudice.

Claims 16, 21 and 23 are amended.

New claims 30-32 are added.

No new matter is added.

Applicant requests reconsideration and allowance of the claims in light of the above amendments and following remarks.

Claim Objections

Claim 23 is amended to replace “(w/s)” with “(w/a)” to correct a typographical error as suggested by the Examiner. Therefore, the objection to claim 23 is now overcome.

Claim Rejections- 35 USC § 102

Claims 16 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by US Patent No. 6,039,641 to Sung (“Sung”). Applicant respectfully traverses the rejections.

Claim 16 is amended to recite,

“A diamond tool having a shank and a plurality of abrasives attached thereto, wherein a plurality of concave portions are formed in a surface of the shank and a plurality of abrasives are bonded into the concave portions, and wherein *another plurality of abrasives are formed over the plurality of abrasives bonded into the concave portions and onto the surface of the shank to form multiple abrasive layers.*” Nowhere does Sung teach or disclose such features of the claimed invention. In particular, in Sung, the diamond particles and the diamond braze are merely filled in the opening slots, but they are not formed as multiple layers as recited in claim 1. Also, no abrasive layer is formed onto the surface of the shank to form multiple abrasive layers as recited in claim 1. Thus, Sung does not teach or disclose all of the limitations of claim 1. As

a result, the rejection does not present a prima facie case of anticipation. Accordingly, claim 16 is in condition for allowance.

Further, claim 19 is also in condition for allowance for its dependency and its own merits. For example, nowhere in Sung teaches or discloses that slots 214 can have a rounded upper end edge and it appears that the slots 214 shown in FIGS. 7A and 7B have a rounded upper end edge contrary to the Examiner's contention.

Claim Rejections- 35 USC § 103

Claims 16, 19 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,611,326 to Caspani et al. ("Caspani").

Claims 17-18, 23-25 and 28-29 are rejected under 35 U.S.C. § 103 as being unpatentable over Sung.

Claim 20 is rejected under 35 U.S.C. § 103 as being unpatentable over Sung as applied to claim 16 above, in view of US Patent No. 4,091,792 to Farrell.

Claim 21 is rejected under 35 U.S.C. § 103 as being unpatentable over Sung as applied to claim 16 above, in view of US Patent No. 4,091,792 to Farrell and US Patent No. 4,624,237 to Inoue.

Claims 26 and 27 are rejected under 35 U.S.C. § 103 as being unpatentable over Sung as applied to claim 16 above, in view of US Patent No. 5,989,405 to Murata et al. Applicant respectfully traverses the rejections.

As discussed above, claim 16 now recites, among other things, *"another plurality of abrasives are formed over the plurality of abrasives bonded into the concave portions and onto the surface of the shank to form multiple abrasive layers."*

With such unique patentable features of the claimed invention, the service life of the tools can be extended and the performance can be improved as compared with a conventional tool having a single abrasive layer as shown in the cited references.

Caspani does not teach or disclose such unique features of claim 16. For example, in Caspani, no abrasive layers are formed onto the surface of the shank to form multiple abrasive layers as recited in claim 16, not to mention the multiple abrasive layers. See FIGS. 1-4 of Caspani.

Also, claims 17-24 and 25-29, which depend from allowable claim 16, are also in condition for allowance for their dependency and their own merits. For example, claim 21 now recites, “a groove is formed in a main cutting face of the shank and a through-hole is formed in a sub-cutting face of the shank, and the plurality of abrasives are bonded into the groove and the through-hole.” None of the cited references teach or disclose such features of claim 21.

New Claims

None of the cited references teach or disclose all of the limitations of new claims. For example, new claims 31 and 32 are supported in the specification at page 15, lines 12-20.

CONCLUSION

For the foregoing reasons, reconsideration and allowance of all pending claims of the application as amended is requested. The Examiner is encouraged to telephone the undersigned at (503) 896-2643 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,



Hosoon Lee
Reg. No. 56,737

Customer No. 83219

9600 SW Oak Street, Suite 525
Tigard, OR 97223
Phone: 503) 896-2643